

### **ABSTRACT OF THE DISCLOSURE**

A method for generating a multicolor image of a specimen with a microscope is disclosed. The method comprises the step of determining the spacing of the focal planes of a first illuminating light beam that has a first wavelength and of a second illuminating light beam that has a second wavelength; the step of scanning the specimen with the first illuminating light beam and generating a first partial image; the step of performing a relative displacement, by an amount equal to the spacing, between the specimen and the focal plane of the illuminating light beam of the second wavelength; the step of scanning the specimen with the second illuminating light beam and generating a second partial image; and the step of superimposing the first and second partial images to yield the multicolor image. Further more a microscope and a confocal scanning microscope are disclosed.